

**NATURAL RESOURCES CONSERVATION SERVICE**  
**Wyoming**  
**CONSTRUCTION SPECIFICATIONS**  
**FOR**  
**IRRIGATION LAND LEVELING**

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(Owner/Operator)

### GENERAL

Installation shall be in accordance with an approved design and plan. Details of construction shown on the drawings but not included herein are considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations.

### CLEARING AND SMOOTHING

All lands to be leveled shall be cleared of trash and vegetative material. Grass and other crop material shall not be plowed under immediately prior to leveling. However, crop ridges may be eliminated by discing or floating. All preparatory operations should be performed in a manner that will leave the field surface in as firm and smooth a condition as possible.

### EARTHWORK

Field Grading Operations. The land shall be leveled to the designed grade or grades. Fills of more than six inches shall be built up by spreading the soil in successive layers not exceeding about six inches in thickness. Leveling operations are not permitted when the soil is frozen or when it is excessively wet. As a general guide, soil will be considered excessively wet when the surface six inches is at or near the field moisture holding capacity.

Ditches and Embankments. Waste material, from all irrigation or drainage ditches, used in the leveling operation, shall be considered as “cut” material and shall be used in “fill” areas. Raised roadways, ditch pads, or other embankments, planned and staked as a part of the leveling operation, shall be considered “fill”

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(Project/Title)

areas and shall be built to grade with material excavated from “cut” areas or from designated borrow areas.

### FINISH

After all cuts and fills have been completed, the field surface shall be smoothed to remove minor irregularities. A long-frame bottomless scraper or plane is the best kind of smoothing equipment. Other types of equipment may be used, provided they will eliminate visible abrupt irregularities and will produce a surface within the grade tolerance specified.

Finished grades or elevations shall be not more than 0.1 feet from design for slopes up to 0.5 percent and 0.2 feet from design for slopes of 0.5 percent and greater as indicated on the plan sheet and as established by the construction grade stakes, except as stated below. No reverse grades shall be permitted for furrow or corrugated irrigation methods. For basin or border irrigation, reverse grades shall not be permitted if they cause ponding of water to a depth exceeding twice the allowed construction tolerance. If deviations from the plan are made by the cooperator during construction and are within the limits of the Land Leveling Practice Standard, the responsible technician may accept these as changes in the plan and check the completed job accordingly. (The acceptance of changes by the Cooperator shall be noted on the design plan.)

A field leveling job shall be considered satisfactory if 90 percent of the check points, randomly selected to represent the field area, are within the tolerance limits indicated above, and

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no point exceeds tolerance more than 50 percent.

The check should be made before the equipment leaves the field.

#### ADDITIONAL REQUIREMENTS